



**Nashoba Valley
Amateur Radio Club**

SIGNAL

September 1993 Volume 2 Number 9

The Presidents's Column

Did you know that you can be an exhibit at the Smithsonian Museum of American History in Washington, D. C.? The museum has an amateur station available for use by licensed hams. It is located in the Information Age Display on the first floor of the west wing. It's an actual exhibit. You must make advance reservations with the museum to operate the station.

I'm sure you've been wondering what well-known personalities hold Amateur Radio Licenses. Here's just a few courtesy of K1DG—

HR1OL	Arellano, General Oswaldo Lopez (former President, Republic of Honduras)
WA4CZD	Atkins, Chet (Musician)
EA0JC	Borbon y Borbon, Juan Carlos I de (King of Spain)
FO5GJ	Brando, Marlon (Actor)
IOFCG	Cossiga, Francesco (President of Italy)
KB2GSD	Cronkite, Walter (Journalist, CBS)
N4KET	French, David (Journalist)
K7UGA	Goldwater, Barry (former U.S. Senator R-AZ)
JY1	Hussein I (King, Hashemite Kingdom of Jordan)
KA6HVK	Ives, Burl (Entertainer)
W6EZY	LeMay, Curtis (Vice-presidential Candidate, 1968)
WB4KCG	Milsap, Ronnie (Entertainer)
K6DUE	Neal, Roy (Journalist, NBC)
W6UK	Ray, Alvino (Musician)
NK7U	Rudi, Joe (Major League Baseball Player, Oakland As)
K2ORS	Shepherd, Jean (Humorist)
KD6OY	Shandling, Gary (Comedian)
WB6ACU	Walsh, Joe (Entertainer)

If you know of others please pass them along and we'll include them in future newsletters.

Stan, KD1LE

This month's speaker

Auto Security

Scott Pyles, WX1J will give a brief presentation on auto-related crime, vehicle security systems in general and some ideas for inexpensive, effective ways you can protect your investment in equipment as well as your car, and most importantly yourself and your family.

Scott is a frequent speaker at electronics industry workshops and seminars. He has also logged nearly 200 hours on commercial radio station talk shows and community affairs programs nationally, informing consumers about actions each of us can take to reduce the chances of being a victim of crime.

This presentation was postponed from our previous club meeting.

Pictures for Septemberfest

Don't forget to bring in a picture of yourself with your rig and a line or two about what you like about Ham Radio. If anyone has pictures of activities the Club has taken part in like the Road Races, Field Day, Parades or even a special event you have taken part in outside of the club (i.e. Jamboree On the Air) please bring them in as well. Also any QSL cards you think would go well on the display. We're going to use all this as part of our booth at Septemberfest.

We are planning to make an all out effort to introduce and recruit people to Ham Radio this year. Remember, this is the event where we recruited the members for last fall's class and we're planning another class starting September 29th at the Groton fire station. To make this recruiting effort a success we will need everyone's help. Nine members have signed up to help so far but we could still use more hands to run the different activities. Let me know at the September 16th meeting if you can help us out. And mark your calendars--

Septemberfest
September 18th, 9AM to 3PM
Legion Common
Hollis Street (just off Main Street)
Groton,, MA

Karen Reif, KA1JVU

Outbound DX QSL Cards Wanted!

The NVARC QSL Manager (me) will be making a rare appearance at the next meeting to collect your outbound DX cards for transshipment to the ARRL. By batching everyone's cards together we can save a lot on postage. What I need from you are your filled out cards and the mailing label from your most recent QST (for ARRL membership verification). I'll take care of the rest.

Clint, KD1OL

Kudos

Well, one of our own has made the big time! One of Ben's (KB1FJ) "Good Guy Reports" got published in the "Mercury" (#105, July 1993, p. 29) which is the official journal of the Royal Signals Amateur Radio Society in the UK. Ben commented on the excellent signal quality and operating procedures he observed during a CW QSO between N2DAN and G4RS/P back in May on 15 meters. BTW, Ben will be available for autographs at the next meeting.

Our Club's Treasury!!!

There are a number of ways you can help increase the dollars in our treasury. Several firms have elected to offer the club discounts and/or rebates if orders for their products are placed through the club's auspices. For example, I'm sure you are all familiar with the rebate offered by the ARRL for memberships (both new and renewals). The ARRL rebates \$5 to the Club for new members and \$2.50 for renewals. Also, the people who publish such magazines as CQ and Popular Communications have offered a Club Treasury Rebate Program. They will rebate 10% of any Club purchases of CQ products (including new subscription orders)! CQ Communications, Inc. has an extensive listing of books which are of interest to the Ham and a 10% rebate is very good for just placing the order via the club.

One of our own, Paul (NX1P) of PDK Company has offered the club a 10% rebate on any of his software products such as Logview (an excellent Windows Log-

ging Program), Packview (a Windows Packet program), and Rigview (a Windows-based program for remote controlling your radios). All three of these may be displayed on your PC screen at the same time allowing maximum flexibility in controlling what's going on at your operating position. NVARC members receive a 10% discount and the Club also gets 10%. That's a very good deal.

So, if you are considering any of these purchases in the future, please place the order through the club Treasurer (me) so that we may take advantage of these very generous offers.

Ben, KB1FJ

One Man's Junk is Another's Gold Mine

"I'M THROWING THIS OLD TV SET IN THE TRASH, CAN YOU USE THE PARTS?" "NAW! THERE'S NOTHING IN THAT OLD SET WORTH SAVING."

Let's run that again. There's a wealth of useful devices for the inventory of the circuit builder and experimenter. Whether the set is of the tube type (these are now worth more intact to collectors), semiconductor type, or a hybrid each set contains a bucket full of useful items.

We'll start with the hardware and obvious stuff. Here's a nice cheater line cord. We can either use it as is or remove the two pin female plug. And we can always use these sheet metal screws and these picture tube grounding straps. A four inch speaker is certainly nothing to get excited about, but it's a free-be. Let's put these shaft bushings in a can and save these nylon shaft couplers as well (we may want to isolate a tuning capacitor from hand capacity when we build our UHF regenerative project).

Now that the chassis is laying on the bench, let's see what else we can use. Here's a nice thermal overload protector. It's resetable and makes a great delayed action circuit breaker—maybe in the filament circuit of our final amplifier tube. How about these fuses, fuse holders, and glo-bar regulators—they'll certainly be useful later on.

If the set uses tubes, that power transformer is about 700 volts center tapped on the high voltage winding with a couple of six volt and maybe a five volt winding. If it's a semiconductor set, there's a nice high current transformer with a secondary of from 12 to 28 volts. The bridge rectifier is a neat hi-current package or, maybe, it uses discrete diodes.

Let's snip out all of the wiring to make it easier to locate the parts we want. Hey, this wire is of different sizes and colors. Great hook-up wire—we'll put it with our wire supply. Wow, we almost overlooked the common mode magnetic line filter. We'll need that to keep our QSO's out of "Evening Shade". We'll save the plastic cable clamps and the threaded nylon chassis plugs too.

Here's a nice filter choke and some hi-capacity electrolytic brute force filters for our next power supply project. What's this ferrite gadget on the antenna terminals? Why it's a 4:1 balun, probably not too effective on the HF bands but certainly good for six meters and up.

How many of these terminal strips, switches, potentiometers can we get out without breaking the terminals? It's a good exercise in preparation for when we have to do some work on our everyday equipment. If we can't remove a part from this old TV set without destroying either the part or the circuit board, we're not going to be able to change a defective part in our rigs even knowing which part is faulty. We practice on these old sets to develop technician skills. Someday that could save us a ton of money.

Well, I guess we all get the idea. We'll wrap-up this discussion with a list of some other parts for our junk boxes. The list isn't meant to be complete, just to give us some idea of the goodies laying there along side the curb or in the neighbors basement.

- Dial lights, LED's, neon bulbs, and sockets
- Plugs and jacks both coax and multi-pin
- Audio, IF, RF, and sweep transformers
- EMI ferrite beads for decoupling
- Capacitors of all kinds
- Inductors of many values
- Diode (detector, rectifier, zener, varactor)
- Transistor (small signal, audio, sweep ckt)
- SCRs, IC's and their sockets
- Resistors (fixed, variable, hi pwr wire wound)
- Tuned circuits (coil forms with ferrite slugs)
- Delay lines, crystals, other hi-voltage stuff

It will probably take us a whole evening to disem-bowel one of these sets, but I think the component count makes it a good investment of time.

Russ, WR1Y

Treasurer's Report

As of this month, the NVARC has paid the annual Insurance Premium and we have no outstanding bills. We will be buying a projection screen for our meetings, but as yet we have no estimated cost.

Cash on hand	\$26.17
Cash in Bank	\$624.95

Anyone with suggestions for fund raising please contact me at the September Meeting.

Ben, KB1FJ

SAREX Flight STS-58

Just in case the Space Shuttle Columbia lifts off before the next *SIGNAL* reaches you, here's the Amateur Radio frequencies for the mission: voice downlink (Worldwide) 145.55 MHz; voice uplink 144.91, 144.93, 144.95, 144.97, 144.99MHz; voice uplink (Europe only) +144.70, 144.75, 144.80 MHz; and packet uplink: 144.49MHz. Crew members for the 13 day mission include Pilot Richard A. Searfoss, whose amateur license is pending; Mission Specialist William S. McArthur Jr., KC5ACR; and Payload Specialist Martin J. Fettman, KC5AXA.

15 schools are scheduled to participate; in Arkansas, Texas, Ohio, Missouri, Arizona, Tennessee, New Hampshire, Kentucky, Colorado, North Carolina, Indiana, and France. Further information is available from the ARRL Educational Activities Department, and updates will be available on W1AW as the launch date nears.

Courtesy *The ARRL Letter*, American Radio Relay League

This Just In...

On the Hill—The League's Washington representatives successfully fought off an attempt to impose an annual regulatory fee on every ham in the U.S. as part of the Omnibus Budget Reconciliation Act (H.R. 2264). On the upside the bill also includes an ARRL-endorsed provision allowing the FCC to charge a special processing fee for "Amateur vanity call signs." The conference also accepted, as proposed, language in the Senate's Emerging Telecommunications Technology Act requiring the Secretary of Commerce to seek to avoid excessive disruption of existing use of shared Federal/Amateur Radio frequencies.

At the FCC—The ARRL has asked the FCC to expand on a proposed rules change (RM-8218) in comments filed July 30 in response to a petition filed by the American Digital Radio Society. The league asked that amateur stations under automatic control be allowed to operate outside the specific subbands proposed earlier. Under the new ARRL proposal, stations operating outside the subbands would be subject to three limitations: they must not be able to initiate

transmissions; they must be able to respond only in interrogation by stations operated under local or remote control; and they must be limited to a bandwidth of 500 Hz.

In June the FCC issued 5,978 new amateur licenses, the largest monthly total in more than two years. Meanwhile, the Gettysburg backlog remained virtually unchanged, as some 5,000 new amateur applications poured in (not to mention another 5,000 renewals and upgrades!)

At the League—The ARRL Volunteer Examiner Coordinator administered 569 exam sessions in March, an all-time record; April's 501 sessions was the second highest. The usual summer slump pulled that down to "only" 446 sessions in May.

Courtesy *The ARRL Letter*, American Radio
Relay League

More from Manchester

July 24th and 25th were the dates of this year's ARRL New England Convention, held in Manchester, New Hampshire. Normally held on even years in Boxboro, Massachusetts, this year was a departure from the norm.

I intended to start the day out early, and get to the flea market by 8AM. My XYL and harmonics were in England visiting my in-laws, so naturally I had a late night the night before with several of my old fraternity brothers. So much for the early start!

Getting out of bed shortly after 8, I proceeded to mix up my contact lens solutions, and wound up with a situation that approximates a sharp stick in the eye! Having nothing better to do, it was thought that a breakfast at the Fox Pond II might be just what I needed to get me back on track. Fully stuffed, and riding a healthy dose of caffeine, I headed home, plopped the contacts in (carefully this time), and headed to Manchester.

Each convention is different and each convention means different things to different people. I will try to share my experience with you.

Arriving shortly after 11AM, I headed to the flea market. It was indoor and air conditioned! Personally, I liked this, having either been rained on or having 100 degrees and hot sun beating on me. Most of the vendors were not individuals, but companies selling their stuff, and I found this quite disappointing. Most of the vendors seemed to be the ones usually under the tent at Boxboro. Several clubs also had tables, not for selling things, but for publicizing themselves. Good idea. The QSL bureau (buro?) was also there, but this year I'm ahead with them. Some people were heard mumbling that being inside, it didn't have the feel of a

flea market. You can't please everybody....

The exhibition area was quite good. I thought it had more space than Boxboro, but I may be wrong. The usual companies were there, but I wasn't really interested in the equipment. I go to these conventions to run into old friends.

And so they were there. WA1ISA, Pete, who I met on the novice bands 25 years ago (I hate the way that sounds. Another old buzzard....). K1CB from the old Norwood club (who I had a nice lunch with). WA1TLX, who just returned to New England after 11 years away. W1MJ, K1CE, K1DG, and many others, not to mention the numerous NVARC members roaming around. Renewing old friendships, catching up on lost time. Hey, friends are what ham radio is all about!

There were some exciting seminars going on. The Yankee Clipper Contest Club, as usual, had an excellent program, with presentations on DX-peditions, propagation predictions, contesting, and the QSL bureau on the list. Being an ARRL member (and staunch supporter), I went to "The ARRL Forum". As always, rather than tackle the tough issues, the ARRL board members were introduced (with unjustified applause), some words were said about the excellent job they were doing, several questions were taken and answered, and time was up! I'm sure there was more than this, but this is my article, and I can write it any way I want. Honestly, that's all I remember about the ARRL Forum!

A theater was set up, continually showing ham films. "Field Day Fever" was particularly good, because it was about field day, and because it was produced by a real radio club. We should show this next year.

Capping off the day was the obligatory fox hunt (I.E. hidden transmitter hunt), which I understand was won by someone who did not have a receiver to look for the fox. You figure that one out! And during all of this, most of us were still meeting with our old friends and renewing old acquaintances. Lots of fun.

About 4 PM, I was invited up for a couple of cold ones with Bones, K1CE, Eliot, W1MJ, Russ, WA1TTV, and Jim, WA1TBY. Jim (who spoke at one of our club meetings about traffic handling) is a colorful old timer who had a lot of fun hanging out with us young(ish) guys. The rest of us have known each other since we played softball for or against the 64 repeater team in the 70's. I'm not sure who had more fun making fun of whom. Bones is an ARRL official and full time employee (you will see many of his articles in QST), and he had many humorous stories which had me in stitches (like his descriptions of the "hate" mail he gets (hi) every time he writes an article for QST). I've

been much luckier so far...). He is so recognizable that he actually tried to hide himself from sight on the way to dinner because he didn't want to get hounded on another league related matter. We had Mexican food (mildly hot) which we were used to, except for Jim. This was his introduction to Mexican food. Though he liked it, he found it much spicier than he thought it would be.

After dinner I called it quits early, as I had to get back to let the dog out, but I understand these guys carried on until the wee hours of the morning.

On Sunday, I got back at about 11, just in case someone showed that I missed on Saturday. There was a good presentation by Larry, K1MNS on EME (moonbounce), and a good personal presentation by Jim, WA1TBY, on what mexican food does to his system the next morning, and how he had to borrow the facilities in a friend's hotel room. Remind me not to ask for that room two years from now.

I made a point of attending the QCWA (Quarter Century Wireless Association) meeting (I don't want to tell you why). These guys all looked like they should go to an HCWA meeting (there is no such organization, but there should be). QCWA is a fine social organization, but somehow, I didn't feel ready to join. Perhaps in another 25 years....

I always stay for the raffles, probably because I'm always sure I'm gonna win and never do. Stan., KD1LE shared the misery with me, and we chatted on .49 all the way home.

How did Manchester rate? I had a great time, and I'm sure I would have been disappointed if I missed it. It would have been better with more club members present, but all in all I would say it is right up there with Boxboro. Best of all, we don't have to wait 2 years for the next convention anymore! Boxboro will be on even years and Manchester on odd ones. The 1995 convention at Manchester is already in the works.

If you missed this one, don't forget Boxboro next year. See you there!

Bruce, K1BG

Tech Talk

Well hello everybody, yes I'm back. Not that much happening on 10 meters. I haven't been on that much either. To date (9/7) I have 1172 contacts. Our ground-mounted beam is now roof-mounted. Many thanks to the help of the antenna crew, KD1OL, KD1LE, KB1FJ, myself, N1OJW and the mountain climber (roof climber) WX1J. The next day I made 5 European contacts: 2 Italian, 1 French, 1 Swiss, and 1 German. The

Swiss station was located on the German border and had a TS-450S running 250 watts with an antenna up 1570 ft! Obviously he was up in the mountains, he also had a 9 over 20 here and all of this was on 10 meters. Thanks again guys for the help. Nothing is new on this end but I should be getting my license upgrade anytime now so soon I'll be dropping the KT. We got TCP/IP up and running so I'll be working on that as well. Also made a ton of 2 meter contacts on the Vermont repeater. I'll say 73's for now...

Jeremy, KB1AWE/KT

Flea Markets

- 9/18 Forestdale RI [RIFMRS] @ VFW 8am
Rick K1KYI 401/725-7505
- 9/18 Berlin VT [CVARC] @ NG Armory 9-3
Tom WA1YNU
- 9/19 Cambridge MA @ MIT
Nick 617/253-3776
- 9/19 Sandy Hook CT [Candlewood ARA]
Harold KB1US
- 9/25 Greenbush ME [WCSN/BARC] @ WCSN xmtr
Ed Cockburn 207/732-4366
- 9/26 Framingham MA @ HS
Barry WN1N 508/877-4947
- 9/26 Vernon CT [Natchaug ARC]
Wayne N1GUS
- 10/10 Durham CT [Nutmeg] @ FG 4pm Sat setup
Jim N1IZF 203/349-3353
- 10/15-16 Rochester NH [Hoss Traders] @ FG x13 off Rt 16
K1RQG



Nashoba Valley Amateur Radio Club

President:	Stan Pozerski, KD1LE
Vice President:	Scott Pyles, WX1J
Secretary:	Duane Long, KD1JY
Treasurer:	Ben Akins, KB1FJ

Meetings are held on the 3rd Thursday of the month at 7:30 p.m. at the Pepperell VFW hall.

This newsletter is published monthly. Submissions, corrections, and inquiries should be directed to the newsletter editor, Roger Bisbo, N1OJW. Articles and graphics in most IBM-PC formats are acceptable.

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